



USNCC AS Data Analytics Program Plan

WGU's Data Analytics program is rigorous and offers a comprehensive coverage of scripting & programming, network security, spreadsheets, data management, probability & statistics, and data management applications. The College of IT has built the ASDA degree plan consisting of 20 courses including 11 General Education courses totaling 61 competency units. Additional General Education CUs are met through students' technical backgrounds, military training experience, as well as requirements accounted for in the Joint Service Transcript evaluation process conducted by the Office of Admissions & Transfer.

PROGRAM LEARNING OUTCOMES:

1. The graduate will be able to understand the theory, role, policies, and standards related to data usage in organizations.
2. The graduate will be able to apply methods, technologies, and strategies used in the data analytics profession.
3. The graduate will be able to apply data interpretation, problem solving, and communications strategies used in organizations.
4. The graduate applies business influence skills including leadership, communication, critical thinking, and visualization.

1. CREDITS

- Total Credits for degree: 61 CU
- Gen Ed credits: 33 CU (15 from USNCC, 18 WGU)
- WGU Certificate (Data Analytics Foundations) credits: 19 CU
- Other Required Credits (12 CU): AS degree will also allow the student to achieve two certificates (CompTIA Data+ and AWS Cloud Practitioner).
- Transfer Credit Allowed: 45 CUs max (including the USNCC 15 CUs)
- Residency Requirement: Credits that must be earned at WGU: (16 CUs)
- The five Naval Studies certificate courses satisfy the WGU General Education requirements for
 - Critical Thinking: Reason & Evidence (3CU)
 - Introduction to Physical & Human Geography (3CU)
 - American Politics and the US Constitution (3CU)
 - Introduction to Communication: Connecting with Others (3CU)
 - Ethics in Technology (3CU)

2. WGU GENERAL EDUCATION AND OTHER REQUIREMENTS (61 CREDITS)

a. USNCC Naval Studies Courses (15 Credits)

USNCC Course	Credits	WGU Equivalent
NAV 101 - Naval Ethics and Leadership	3	D333 Ethics in Technology
NAV 102 - Naval History	3	D265 Critical Thinking: Reason and Evidence
NAV 103 - Force Design and Concepts	3	D268 Intro to Communications-Connecting with Others
NAV 104 - Civil Mil Org and Policy	3	C963 American Politics and the US Constitution
NAV 105 - Introduction to Geopolitics	3	WGU D199 Intro to Physical and Human Geography

b. WGU General Education Courses (15 Credits)

Course	Credits
D269 - Composition: Writing with a Strategy	3
C683 - Natural Science Lab	2
C957 - Applied Algebra	3
C458 - Health, Fitness, and Wellness	4
D372 - Systems Thinking	3

c. Other Required Courses for AS Degree (12 Credits)

Course	Credits
D278 - Scripting and Programming	3
D315 - Network and Security-Foundations	3
D388 - Spreadsheets	3
D282 - Cloud Foundations	3

3. WGU PROFESSIONAL CERTIFICATE (19 CREDITS): Data Analytics Foundations Certificate

The 19 credits below will be tracked towards a stand-alone Professional Certificate Program.

For AS degree tracking purposes, the professional certificate program should also be nestled along with the 15 credit Naval Studies requirements plus the General Education requirements noted in the sections above.

Professional Certificate Required Courses (19 CREDITS)

Course	Credits
D491 - Intro to Analytics	2
D426 - Data Management-Foundations	3
C955 - Applied Probability and Statistics (This is also a GenEd course)	3
D427 - Data Management-Applications	4
D335 - Intro to Programming in Python	3
D492 – Data Analytics – Applications	4

4. WGU CERTIFICATE COURSE DESCRIPTIONS & LEARNING OUTCOMES

- a. **D491 - Introduction to Analytics.** Introduction to Analytics examines data analytics as a discipline and the various roles and functions within the field. You will expand your knowledge about what analytics is and develop a basic understanding of statistics, analysis, problem solving, and programming concepts. This course covers the following competencies:
- The learner identifies the variety of careers and roles related to the broad field of data analytics.
 - The learner identifies the phases of the data analytics life cycle, including contextualizing and defining the scope of each phase.
 - The learner identifies the potential drivers of value from deploying an analytical solution.
- b. **D426 - Data Management-Foundations.** Data Management Foundations offers an introduction in creating conceptual, logical and physical data models. Students gain skills in creating databases and tables in SQL-enabled database management systems, as well as skills in normalizing databases. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner explains attributes of databases, database tables, and structured and associated query language (SQL) commands.
 - The learner determines how to run queries for creation and manipulation of data in relational databases.
 - The learner defines primary and foreign keys in data normalization.
- c. **C955 - Applied Probability and Statistics.** Applied Probability and Statistics is designed to help students develop competence in the fundamental concepts of basic statistics including introductory algebra and graphing; descriptive statistics; regression and correlation; and probability. Statistical data and probability are often used in everyday life, science, business, information technology, and educational settings to make informed decisions about the validity of studies and the effect of data on decisions. This course discusses what constitutes sound research design and how to appropriately model phenomena using statistical data. Additionally, the content covers simple probability calculations, based on events that occur in the business and IT industries. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

- The graduate applies the operations, processes, and procedures of fractions, decimals, and percentages to evaluate quantitative expressions.
 - The graduate applies the operations, processes, and procedures of basic algebra to evaluate quantitative expressions, and to solve equations and inequalities.
 - The graduate evaluates categorical and quantitative data pertaining to a single variable using appropriate graphical displays and numerical measures.
 - The graduate evaluates the relationship between two variables through interpretation of visual displays and numerical measures.
 - The graduate evaluates the relationship between two quantitative variables through correlation and regression.
 - The graduate applies principles and methods of probability-based mathematics to explain and solve problems.
- d. **D427 - Data Management-Applications.** Data Management - Applications covers conceptual data modeling and introduces MySQL. Students will learn how to create simple to complex SELECT queries, including subqueries and joins, and how to use SQL to update and delete data. Topics covered in this course include exposure to MySQL; creating and modifying databases, tables, views, foreign keys and primary keys (FKs and PKs), and indexes; populating tables; and developing simple Select-From-Where (SFW) queries to complex 3+ table join queries. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner recommends databases and database management systems to meet organizational needs.
 - The learner queries database tables and views with SQL code.
 - The learner creates DML statements that insert, update, and delete data in data tables.
 - The learner implements joins and aggregate functions in SQL queries.
- e. **D335 - Intro to Programming in Python.** Introduction to Programming in Python introduces skills in creating Python scripts with basic programming concepts. Learners will be able to create control flow with functions and loops, and to implement code with packages, modules, and libraries. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner creates python scripts with basic programming concepts.
 - The learner creates control flow with functions and loops.
 - The learner implements code with packages, modules, and libraries.
- f. **D492 - Data Analytics - Applications.** Data Analytics Applications covers concepts across the various phases of the data product lifecycle. You will learn to choose and apply appropriate techniques for data management and data manipulation, statistical analysis, visualization, and data governance concepts to satisfy business needs. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner applies basic concepts to analyze data types and data structures.
 - The learner applies appropriate data acquisition and manipulation techniques to address business's data requirement for analysis.

- The learner applies data analysis techniques and tools to address a business need.
 - The learner applies data visualization techniques to communicate a business need.
 - The learner selects the data visualization technique to communicate a business requirement.
 - The learner applies data management concepts to ensure the accuracy and quality of data.
- g. **D269 - Composition: Writing with a Strategy.** Composition: Writing with a Strategy will focus on three main topics: writing strategies, writing style, format and grammar, and editing and revising text. This course consists of an introduction and five sections aligned to the three main topics. The sections address understanding purpose and audience, writing strategies and techniques, format, style, structure, and grammar, editing and revision strategies, and constructive feedback. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The individual writes with purpose for a given context and target audience.
 - The individual incorporates writing strategies and techniques for written communication.
 - The individual constructs a written document with correct format, style, structure, and grammar.
 - The individual formulates a strategy for editing and revising written text.
 - The individual composes constructive feedback of written texts.
- h. **C683 - Natural Science Lab.** Natural Science Lab gives you an introduction to using the scientific method and engaging in scientific research to reach conclusions about the natural world. You will design and carry out an experiment to investigate a hypothesis by gathering quantitative data. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The graduate evaluates academic sources for their credibility and relevance to a chosen research topic on a natural world phenomenon.
 - The graduate accurately executes the process of scientific inquiry through experimentation in the natural world.
 - The graduate draws conclusions based on academic research and scientific inquiry.
- i. **C957 - Applied Algebra.** Applied Algebra is designed to help you develop competence in working with functions, the algebra of functions, and using some applied properties of functions. You will start learning about how we can apply different kinds of functions to relevant, real-life examples. From there, the algebra of several families of functions will be explored, including linear, polynomial, exponential, and logistic functions. You will also learn about relevant, applicable mathematical properties of each family of functions, including rate of change, concavity, maximizing/minimizing, and asymptotes. These properties will be used to solve problems related to your major and make sense of everyday living problems. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

- The learner interprets the real-world meaning of various functions based on notation, graphical representations, and data representations.
 - The learner applies linear functions and their properties to real-world problems.
 - The learner applies polynomial functions and their properties to real-world problems.
 - The learner applies exponential functions and their properties to real-world problems.
 - The learner applies logistic functions and their properties to real-world problems.
 - The learner analyzes graphical depictions of real-world situations using functional properties.
 - The learner verifies the validity of a given model.
- j. **C458 - Health, Fitness, and Wellness.** Health, Fitness, and Wellness focuses on the importance and foundations of good health and physical fitness—particularly for children and adolescents—addressing health, nutrition, fitness, and substance abuse. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The graduate identifies the influence of disease, fitness, and lifestyle on the body.
 - The graduate identifies the principles of nutrition and the components of a healthy diet.
 - The graduate identifies factors that influence mental, emotional, and social wellness.
 - The graduate identifies the application of the core competencies of social and emotional learning.
- k. **D372 - Systems Thinking.** Introduction to Systems Thinking provides learners with the skills required to engage in a holistic systems-based approach to analyzing complex problems and solutions. This course introduces the foundational concepts and principles of systems thinking and provides opportunities to use a systems thinking approach to analyze and evaluate real-world case studies. The course will culminate with using systems thinking to develop a solution to an authentic complex problem. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner applies the basic principles and foundational theory of systems thinking to a scenario.
 - The learner analyzes complex problems and solutions using a systems thinking methodology.
 - The learner designs a solution to a complex problem using systems thinking.
- l. **D278 - Scripting and Programming.** Scripting and Programming - Foundations introduces programming basics such as variables, data types, flow control, and design concepts. The course is language-agnostic in nature, ending in a survey of languages, and introduces the distinction between interpreted and compiled languages. Learners will gain skills in identifying scripts for computer program requirements and in using fundamental programming elements as part of common computer programming tasks. Learners will also gain an understanding of the logic and outcome of simple algorithms. This course covers the following competencies:

- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner identifies scripts for computer program requirements.
 - The learner uses fundamental programming elements as part of common computer programming tasks.
 - The learner explains the logic and outcome of simple algorithms.
- m. **D315 - Network and Security-Foundations.** Network and Security - Foundations introduces learners to the basic network systems and concepts related to networking technologies. Learners will gain skills in applying network security concepts for business continuity, data access, and confidentiality, and in identifying solutions for security compliance. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner identifies basic network systems and concepts related to networking technologies.
 - The learner applies network security concepts for business continuity, data access, and confidentiality.
 - The learner identifies solutions for compliance with security guidance.
- n. **D388 - Spreadsheets.** Spreadsheets offers learners an overview of the use of spreadsheet functions and methods for presenting data within spreadsheets. Learners will have the opportunity to explore features and uses of MS Excel and apply the tools to situations they may encounter while studying in their program. They will also be introduced to real world uses and tools to collect, organize and present data. This course covers the following competencies:
- Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.
 - The learner performs common spreadsheet tasks requiring basic formatting, formulas, and functions.
 - The learner prepares data for analysis.
 - The learner creates a presentation from a spreadsheet dataset.
- o. **D282 - Cloud Foundations.** Cloud Foundations introduces learners to real-world issues and practical solutions to cloud computing. This course covers the business value of cloud computing, examining cloud types, the steps to successful cloud adoption, and the effect cloud adoption has on IT service management, as well as the risks and consequences of implementing cloud solutions. This course covers the following competencies:
- The learner identifies cloud technology solutions in IaaS, PaaS, and SaaS models.
 - The learner determines the best-fit solution for a project based on the cost and support structures.

5. WGU COURSE SEQUENCE

Term	Course
1	D269 - Composition Writing with a Strategy
1	D491 - Intro to Analytics
1	D278 - Scripting and Programming-Foundations
1	NAV 101 - Naval Ethics and Leadership
2	D426 - Data Management-Foundations
2	C683 - Natural Science Lab
2	C955 - Applied Probability and Statistics
2	NAV 102 - Naval History
3	D427 - Data Management-Applications
3	D335 - Intro to Programming in Python
3	D315 - Network and Security-Foundations
3	NAV 103 - Force Design and Concepts
4	D388 - Spreadsheets
4	C957 - Applied Algebra
4	D282 - Cloud Foundations
4	NAV 104 - Civil Mil Org and Policy
5	C458 - Health, Fitness, and Wellness
5	D492 - Data Analytics-Applications
5	D372 - Systems Thinking
5	NAV 105 - Introduction to Geopolitics

Note: USNCC courses will be assigned by USNCC student success to ensure continuity of coursework whether that means back-to-back USNCC courses or the addition of another WGU term.

In summary, the specific courses you will take in subsequent years will depend on:

- The number of prior credits (from coursework, certifications, or training) that were applied to your program plan during your admissions process
- The number of USNCC NAV course you completed or were directed to take in your first and subsequent years
- The number of courses you complete during each WGU 6-month term (you will enroll in a minimum of 12 CUs per term). Your last term may be less if you have less than 12 CUs to graduate in your last term).
- Please consult with your USNCC student success team to determine the best possible start date given your course progression - To access the most up-to-date possible start dates, please refer to the USNCC academic calendar via: <https://www.usncc.edu/Academics/Academic-Calendar>.
- Please consult your WGU Program mentor regarding the sequence of courses at WGU. Please consult the USNCC student success team with any questions you might have related to your program plan and which course will be next in your USNCC NAV course sequence, or any questions you might have related to making progress towards your certificates, certifications, and overall degree requirements.
- To connect with your USNCC student success team, submit a support center request via <https://usncc.force.com/s/support-form> (select Current Student > Academic Issue > Seeking Academic Support). All submitted requests will be followed up within a business day of submission.